OBJECTIVE 1.3-REVITALIZE LAND AND PREVENT CONTAMINATION:

Provide better leadership and management to properly clean up contaminated sites to revitalize and return the land back to the communities.

Abandoned Uranium Mine Wastes

On November 16, 2017, the Office of Inspector General (OIG) for the U.S. Environmental Protection Agency (EPA) provided notification of plans to begin preliminary research to examine aspects of the EPA's management of abandoned uranium mine sites in the Navajo Nation. The OIG characterized needed improvement of the EPA's oversight of states, territories and tribes to accomplish environmental goals as a challenge in its 2017 Key Management Challenges report. This project is included in the OIG fiscal year 2018 annual plan.

The evaluation objectives are to determine whether the EPA has a method for prioritizing cleanup of the 50 abandoned uranium mine sites in the Navajo Nation covered under a $990 million special account from 2015; and whether the EPA has a resource allocation methodology for the special account funds that accounts for estimated cleanup costs, timeframe for cleanup, and scope of cleanup for the 50 sites. The objective questions are preliminary and subject to change if the OIG moves into the fieldwork phase of the evaluation. The OIG plans to conduct work at EPA headquarters and Regions 6 and 9.

About 70 percent of all the uranium mined in the United States from the 1940's through the 1980's came from the 2,500 square mile Grants Mining District located on Navajo and New Mexico lands. Thousands of exploratory borings or holes were made and hundreds of major uranium mines and mills were active in the District before being abandoned. The legacy of the uranium mining industry is millions of tons of waste rock spread over miles and billions of gallons of contaminated water impacting ground water that continue to pose risks to human health and the environment.

Little funding was available to address the problems presented by the uranium mining boom until the February 2011 Tronox settlement that resolved the environmental liability of the defunct Kerr McGee corporation. The settlement provided $900 million to address uranium mine contamination at 55 mines located on or adjacent to Navajo Nation lands. A Tronox Multi-Agency Stake- holders Group was formed in 2015 to oversee the implementation of the settlement. Region 6 is in the process of completing removal site evaluations and engineering evaluation/cost analyses on mines to support future prioritization and cleanup of Tronox mines.

Region 6 is also utilizing the National Priorities List (NPL) process at three mining related sites in New Mexico: Homestake Mill Site near Grants, NM; United Nuclear Corporation, near Northeast Church Rock, NM; and the Jackpile-Paguate mine, near the Pueblo of Laguna village of Paguate, NM. These three NPL sites are undergoing assessment and cleanup work led by potential responsible parties.

Brownfields Program

The Brownfields 2017 National Training Conference is cosponsored by EPA and the International City/County Management Association and takes place December 5 -7, 2017 in Pittsburg, PA.

Since its inception in 2002, the Region 6 Brownfields program has leveraged more than $2 billion in funds for redevelopment; 1,826 properties have been assessed with most of these properties going back

into productive use, benefitting the economies of many communities. More than 16,448 jobs have been created with these leveraged projects.

Region 6 manages a robust Brownfield program that has helped enable the transformation of cities such as Dallas, Houston, Oklahoma City, Little Rock, and others. Opportunities often exceed available grant funding.

In addition to grants, Region 6 offers two programs to help communities get ready for assessment grants or cleanup grants. Region 6 holds one to two Brownfields workshops per state each year hosts an annual Brownfields conference in June. A weekly Brownfields newsletter provides important updates to communities on upcoming competitions and other vital Brownfields information.

Region 6 Brownfield program manages 58 grants in communities throughout Region 6. Some communities with Brownfields grants include: Oklahoma City and Tulsa, OK; West Arkansas Planning District, Southwest Arkansas Planning District, Pine Bluff and Pulaski County, AR; Austin, San Antonio, Houston, TX; and Silver City, NM. Region 6 also has state and tribal grants with Arkansas Department of Environmental Quality, Louisiana Department of Environmental Quality, Oklahoma Corporation Commission, Oklahoma Department of Environmental Quality, Texas Commission on Environmental Quality, Texas Railroad Commission, Intertribal Environmental Commission (OK), Eight Northern Indian Pueblo Council (NM), Kickapoo Tribe of Oklahoma, and Absentee-Shawnee of Oklahoma.

Donna Canal and Reservoir Superfund Site

EPA and TCEQ are developing a coordinated plan to permanently address pollution at the Donna Canal and Reservoir site. The state of Texas is a potential responsible party and cleanup cost will need legislature authorization during the 2018 session.

The Donna Canal and Reservoir Superfund Site is located in Hidalgo County, Texas, near the Texas/Mexico border. The local irrigation district pumps water from the Rio Grande River and transfers the water through several miles of canals for irrigation and drinking water supply. The canal system is contaminated with polychlorinated biphenyls in the surface water, sediment, and fish. Extensive EPA studies have identified the source of contamination as a large, 90-year-old, 1,200-foot-long underground pipe.

The Donna Canal site is contaminated with polychlorinated biphenyls (PCBs) which bio accumulates in fish. The purpose of the fish removal is to prevent human consumption by removing fish that may be contaminated with PCBs from the reservoir and canal system. The fish will be removed from the system by the U.S. Fish and Wildlife Service using electroshocking methods. To date, nearly 40,000 fish have been removed and a public outreach program has focused on informing the public to avoid fishing in the system. Local residents catch and consume contaminated fish from the canal despite no-fishing orders issued by the state.

Chaco Canyon

In April 2018, as a Cooperating Agency, EPA will review the preliminary Draft Environmental Impact Statement related to Unconventional Oil & Gas production for leased parcels in Chaco Canyon prepared by the Bureau of Land Management. The Draft Environmental Impact Statement is expected to be published for public comment in August 2018.

Bureau of Land Management asked EPA to participate in the development of the EIS as a Cooperating Agency. A federal, state, tribal or local agency having special expertise with respect to an environmental issue or jurisdiction by law may be a cooperating agency. A cooperating agency has the responsibility to: assist the lead agency by participating in the NEPA process at the earliest possible time; participate in the scoping process; develop information and prepare environmental analysis that the agency has special expertise in; and make staff support available. In February 2017, EPA Region 6 agreed to participate as Cooperating Agency. EPA signed a Memorandum of Understanding Between the Department of Interior, Bureau of Land Management, Farmington Field Office and the Bureau of Indian Affairs, Navajo Region to establish expectations.

On January 25, 2017, the Bureau of Land Management (BLM) leased nearly 850 acres of land for UOG development in Chaco Canyon, netting close to $3 million. The sale had been postponed three times over the last five years because of concerns relating to the proximity to Chaco Culture National Historical Park - a United Nations Educational, Scientific and Cultural Organization World Heritage site and an International Dark Sky Park.

While Chaco Canyon and its ruins, such as Pueblo Bonito, are protected from development, as is a 10-mile buffer around the park, surrounding areas are not. Chaco is the core of a much larger Ancestral Puebloan civilization that extended for hundreds of miles in the central San Juan Basin from about 900 to 1150 A.D. The land today is sacred to Navajo, Hopi, Zuni and other Pueblo Indians, and bears remnants of a system of 30-foot-wide roads radiating outward from Chaco Canyon, as well as extensive ruins, artifacts and even lunar calendars etched into boulders. All of those are still undergoing study by archaeologists.

About 90 percent of the Chaco Canyon area has already been leased for Unconventional Oil & Gas development, and Tribal and Non-Governmental Organizations representatives fought to exclude the remaining areas. They succeeded in delaying this lease sale multiple times over concerns that hydraulic fracturing and horizontal drilling would harm public health and the environment. A petition signed by 650 residents and industry representatives, however, asked the Bureau of Land Management to allow the sale to proceed for the jobs and revenue it would generate.

The leased parcels will not be released to the winning bidders by BLM until several protests filed against the leases have been resolved.

Kirtland Air Force Base, Albuquerque

On June 29, 2017, the Albuquerque Bernalillo County Water Utility Authority released a highly critical report that said the Air Force and the NMED simply don't have enough information about the nature and extent of plume of aviation fuel and EDB in the groundwater to go forward with even remedial efforts to clean it up. Intera examined the Air Force's Resource Conservation and Recovery Act Facilities Investigation Report (RFI), which is the first step in planning a cleanup effort. The Report was prepared by Sundance Consulting Inc. for the U.S. Army corps of Engineers. Intera found that the report incredibly deficient.

The Bulk Fuels Facility Resource Conservation and Recovery Act Facility Investigation and Risk Assessment reports were submitted by Kirkland Airforce Base on January 31, 2017, and July 15, 2017, respectively. The purpose of the Resource Conservation and Recovery Act Facility Investigation was to

determine the nature and extent of contamination resulting from a large spill of jet fuel and aviation gasoline (avgas) that has percolated 500 feet down to the drinking water aquifer. The Risk Assessment concluded that there are no estimated unacceptable risks to current human and ecological receptors on-site or off-site.

A long term release of jet fuel and aviation gasoline from underground pipelines at Kirtland Air Force Base in Albuquerque, New Mexico, has resulted in a large plume beneath southeast Albuquerque, near the city's drinking water supply wells. The principal contaminant is ethylene dibromide. Ethylene dibromide has not been detected in city wells so far, and a groundwater pump and treat system was installed in 2016 as an interim measure under the Resource Conservation and Recovery Act. Health effects from EDB include problems with the liver, stomach, reproductive system, and kidneys, and may increase the risk of cancer. EPA developed the groundwater model now used by New Mexico Environment Department and the Air Force, and the Region continues to support the state by reviewing reports and providing modeling support.

Near term activities are to test and adjust the pump and treat system to protect the drinking water wells. As of September 11, 2017, 263.4 million gallons of water have been treated, and 75.1 grams of EDB have been removed. Long term plans are to eliminate the EDB plume from off-site areas, protect the drinking water supply wells, and address other fuel contaminants near the base property line. Corrective action of the fuel spill is being performed under a RCRA hazardous waste permit issued by New Mexico Environment Department. Kirkland and New Mexico last held public meetings on November 14, 2017.

San Jacinto River Waste Pits Superfund Site

EPA is working with the Department of Justice and responsible parties on a special notice and is negotiating a consent decree that will facilitate the specific design for work at the site. EPA plans to meet with the responsible parties in early December.

On October 11, 2017, Administrator Pruitt signed the Record of Decision for this site calling for excavation and off-site disposal of dioxin wastes at a cost estimate of $115 million. Negotiations are expected to take six to 12 months in working with the responsible parties. The design activities can take as long as another six to 12 months and then work will start. A public meeting to discuss the Record of Decision and provide a site update is scheduled for December 4.

Following Hurricane Harvey, EPA conducted an assessment of the site to determine the extent of damage caused by the storm, and the potentially responsible parties found erosion of the river bottom adjacent to the temporary armored cap. The survey of the San Jacinto riverbed found erosion of the river bottom up to 12 feet deep near the cap. The total area of river bottom eroded in the vicinity of the cap was over 20,000 square feet. The stabilization work approved today includes placement of a geotextile fabric layer covered with at least three feet of rock with a median diameter of eight inches. EPA directed the potentially responsible parties to stabilize a 40-foot by 400-foot area adjacent to the east side of the cap to prevent future undermining of the armored cap. The temporary armored cap has not been damaged in this area.

On September 28, shortly after Hurricane Harvey, EPA received preliminary data from sediment samples collected by EPA's dive team from 14 areas at the site. Samples from one of the 14 areas confirmed the

protective cap had been damaged and the underlying waste material was exposed. Repairs to add armored rock to the cap were completed shortly after the sampling was conducted. All repairs to the damaged cap from the storm are now complete. EPA directed the potentially responsible parties to collect additional samples near the damaged area, and sampling has also been completed. Six additional samples were collected and preliminary results did not show elevated levels of dioxins in nearby sediments.

The San Jacinto River Waste Pits Superfund Site is situated east of Houston, Texas. Pits were built in the mid-1960s along the banks of the San Jacinto River and used for disposal of pulp wastes containing dioxins. The waste pits are partially submerged in the river due to regional subsidence. A temporary armored cap was completed in 2011 under an EPA order to prevent continuing releases and direct contact with the waste material.

Waste Isolation Pilot Project, Carlsbad, NM

On September 21, 2017, EPA was alerted to increase convergence and concerns regarding the ability to maintain salt roof and walls in an underground area. EPA requested Department of Energy to add additional air monitors in the underground so that in worst-case scenario the air monitors could detect waste container leaks due to salt cave-ins.

The Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico, is the only permanent nuclear repository for defense related transuranic (TRU) waste. The WIPP was closed in February 2014 after a radiation release occurred in one of the containers in the underground repository 2150 feet below the surface.

The Department of Energy (DOE) evaluated the cause of the release, issued an accident investigation report and developed and implemented a corrective action plan to address the problems found in the investigation report.

After inspections by DOE, Mine Safety Health Administration, EPA, and the NMED, emplacement of TRU waste resumed on January 4, 2017. DOE says emplacement is at a pace to assure compliance with the enhanced safety procedures and characterization process. DOE currently has more than 22,000 containers of TRU waste in storage at DOE sites across the country destined for permanent emplacement at WIPP. Shipments are scheduled from Waste Control Specialists in Texas and DOE facilities in Idaho, Oak Ridge, Savannah River and Los Alamos.

Environmental regulation of the WIPP is the responsibility of New Mexico Environment Department for hazardous waste under the RCRA, with oversight by EPA Region 6. The Office of Radiation and Indoor Air (ORIA) at EPA headquarters is responsible for approving the facility as capable for safely containing radioactive waste under the Land Withdrawal Act and EPA's radioactive waste disposal standards.

Takata Airbag Inflator Recall

State of Texas is expected to amend Clean Harbors permit incorporating provisions for disposal of explosives to allow them to accept Takata airbag inflators currently stored in Eagle Pass, Texas.

Takata has recalled over 60 million airbag inflators due to a defect associated with ammonium nitrate and temperature/humidity cycling of the airbag inflators. The Department of Transportation (DOT) has issued a Preservation Order that requires Takata to preserve all inflators from U.S. vehicles involved in

the recall. Takata has reached storage capacity in warehouses in Michigan (12 million inflators stored) and Missouri (5 million inflators stored). Takata is currently storing recalled inflators at a warehouse in Eagle Pass, Texas, which will reach capacity (5.3 million inflators) in December 2017.

EPA HQ does not consider the stored undeployed inflators to be discarded, and therefore they are not subject to RCRA at this time. The DOT is reviewing the Preservation Order to allow for the systematic disposal of air bag inflators. Once a subset of inflators is no longer covered by the Preservation Order it would immediately become a hazardous waste and hazardous waste storage/disposal rules would apply. Takata is in conversations with disposal facilities in Missouri, Texas, and possibly other states in anticipation of permission being granted to dispose of a significant quantity of the recalled air bag inflators. There are approximately 150,000 lbs. of ammonium nitrate per million inflators.

Takata declared bankruptcy in June 2017, and upon exit the Original Equipment Manufacturers (OEMs) will become more responsible for the recall activity.

At EPA's request, Texas Commission on Environmental Quality conducted a site visit to the Eagle Pass storage facility in October 2017, and coordinated with the local Fire Chief on emergency response planning.

Oklahoma Underground Storage Tank Program – Oklahoma Corporation Commission, Program Approval

EPA has prepared a direct final rule to grant approval of Oklahoma's Underground Storage Tank program for publication in the Federal Register. Without adverse comment, the rule will be effective 30 days after publication.

EPA amended the Underground Storage Tank regulations in 2015. As a result, states need to reapply, to EPA, for approval of their UST programs. The Oklahoma Corporation Commission has responsibility for the program in Oklahoma. Oklahoma has enacted statutes and developed regulations in accordance with EPA requirements, put other necessary components of the program in place and applied for formal approval. A state program can be approved if it is judged to meet three criteria:

1. It sets standards for eight performance criteria that are no less stringent than federal standards.
2. It contains provisions for adequate enforcement.
3. It regulates at least the same USTs as are regulated under federal standards.

Oklahoma Coal Combustion Residue Permitting Program

The Oklahoma Department of Environmental Quality has requested review and approval of its permit program consistent with the 40 CFR 257, Subpart D pertaining to coal combustion residual (CCR) units.

There are 6 Coal Combustion Residue facilities in Oklahoma. The state's application is currently under review by EPA. It appears that Oklahoma did not include in its coal combustion residual rules the EPA guidance recommending notice and opportunity for public involvement in settlements of civil actions. However, this requirement is based on guidance, not regulation so EPA is evaluating if it would prevent approval.

On October 12, 2017 letters were sent to tribal leaders offering consultation and coordination regarding the CCR Permit Program Application from the State of Oklahoma. On October 19, 2017, Region 6 began government-to-government consultation and coordination by having a conference call to answer questions on the CCR program and the Oklahoma application.

This will be the first program approval acted upon by EPA.

On September 14, 2017, EPA granted two petitions to reconsider substantive provisions of the final rule regulating coal combustion residuals (CCR) as nonhazardous waste under subtitle D of the Resource Conservation and Recovery Act (RCRA).

In granting the petitions, EPA determined that it was appropriate, and in the public's interest to reconsider specific provisions of the final CCR rule based in part on the authority provided through the Water Infrastructure for Improvements to the Nation (WIIN) Act. EPA did not commit to changing any part of the rule, or agreeing with the merits of the petition – the Agency simply granted petitions to reconsider specific provisions. Should EPA decide to revise specific provisions of the final CCR rule, it will go through notice and comment period.

The petition from the Utility Solid Waste Activities Group (USWAG) was submitted May 12, 2017, and seeks reconsideration of 11 specific provisions of the final CCR rule, including provisions prohibiting the use of alternative points of compliance for ground water contamination, regulating inactive surface impoundments, and defining what activities constitute beneficial use of CCR. The petition from AES Puerto Rico LLP was submitted May 31, 2017, and seeks reconsideration of certain on-site storage practices.

The current rule went into effect on October 19, 2015 and regulates how CCR generated from electric utilities and independent power producers is managed and disposed of in surface impoundments and landfills. The rule also defines what constitutes beneficial use of CCR; and, therefore, is excluded from the rule's requirements.

In December 2016, the WIIN Act was enacted into law. Section 2301 of the WIIN Act provides authority for states to operate permit programs under subtitle D of RCRA, as long as the EPA determines that the state's requirements are as protective as the standards in the 2015 final rule or successor regulations. Should EPA decide to revise specific provisions of the final CCR rule, it will go through a notice and comment process.